## ABSTRACT

A method and system implemented in an application programming interface (API) and an object model allows program code developers to interface in a consistent manner with a scene graph data structure to output graphics. Via the interfaces, program code writes drawing primitives such as geometry data, image data, animation data and other data to visuals that represent a drawing surface, including validation visual objects, drawing visual objects and surface visual objects. The code can also specify transform, clipping and opacity properties on visuals, and add child visuals to other visuals to build up a hierarchical scene graph. A visual manager traverses the scene graph to provide rich graphics data to lower-level graphics components.